

## ELECTRONIC METERS

### TDS 100H Series ISO Approved - Ultrasonic Flow Meter.



#### APPLICATION:

Non invasive measurement of velocity of liquid flowing in a pipeline.

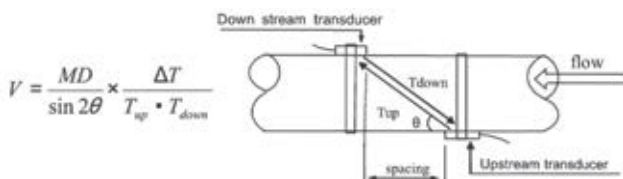
#### FEATURES:

- Accuracy: better than 99%.
- Repeatability: Better than 98%.
- Installation: Clamp on.
- Display: 4 x 16 English letters.
- Output: RS232.
- Weight: .53kg.
- Power: 100 - 230VAC built-in Ni-H rechargeable battery.
- Battery life: 10 hours.

#### MEASUREMENT PRINCIPLE:

The TDS - 100H series ultrasonic flow meter uses the well known Transit-Time measurement principle plus propriety signal processing and ultrasonic transceiver technology.

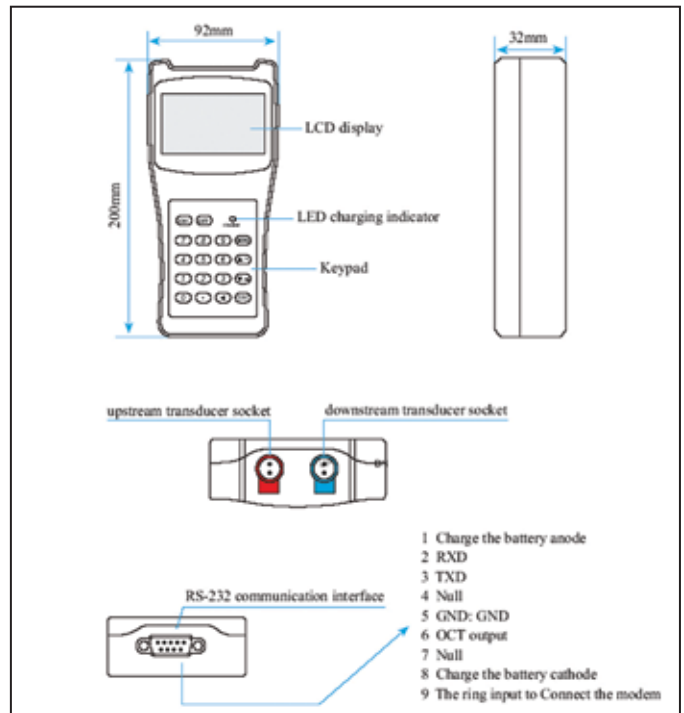
When an ultrasonic signal is transmitted through the flowing liquid, there is a time difference (transit time) between the upstream and downstream transducers which is proportional to the flow velocity according to the formula below.



#### TRANSDUCER OPTIONS



#### COMPONENTS



#### TRANSDUCER PARAMETERS

Items	Frame Sensor		Standard Sensor			High Temp. Sensor	
Specification	HS	HM	SI	MI	LI	SH	MH
Diameter (mm)	15-100mm	50-700mm	15-100mm	50-700mm	300-6000mm	15-100mm	50-700mm
Materials	Aluminium Alloy		ABS			High Temp. material	
Frequency	1MHz						
Installation	V(N/V)	V/Z	V(N/W)	V/Z	Z	V(N/W)	V/Z
Magnetic	Yes					No	
Apply for Temp.	0°C - 70°C					0°C - 160°C	
Protect	IP65						
Size (mm)	200x25x25	280x40x40	45x30x30	60x45x45	80x70x55	90x85x24	90x82x29
Weight (g)	250	1080	75	250	650	94	150
Liquid Type	Water, Sea Water, Waste Water, Chemical Liquids, Oil, Alcohol, Beer, etc.						
Suspension Concentration	<10,000ppm and particle size less than 80um. May contain very small amount of bubbles						
Apply for Temp. Pipe material	Carbon Steel, Stainless Steel, Cast Iron, Copper, PVC, Aluminium, Fibreglass-epoxy, Allow Pipe Liner						
Cable	Shielded Transducer cable. Standard Length 5m. Can be extended to 500m.						

#### PERFORMANCE INDEX

Accuracy	flow meter better than ±1.0%; water meter better than ±2.0%
Repeatability	better than ±0.2% or ±0.5%
Velocity	0~ ±32m/s
Liquid type	water, sea water, industry water, oil, liquid available for ultrasonic
Liquid Temp	≤160°C
Turbidity	≤10000 ppm (10g/l)
Display	display flow rate, velocity, signal quality, totalizers, ect.
Output	4-20mA, Relay, OCT, RS232, RS485 (selectable)
Input	4-20mA channel analog
Communication	MODBUS, M-BUS, FUJI